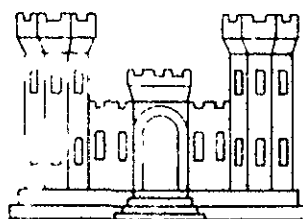


NOT FOR PUBLIC RELEASE

PRELIMINARY EXAMINATION
OF
IPSWICH RIVER, PLUM ISLAND SOUND
AND FOX CREEK

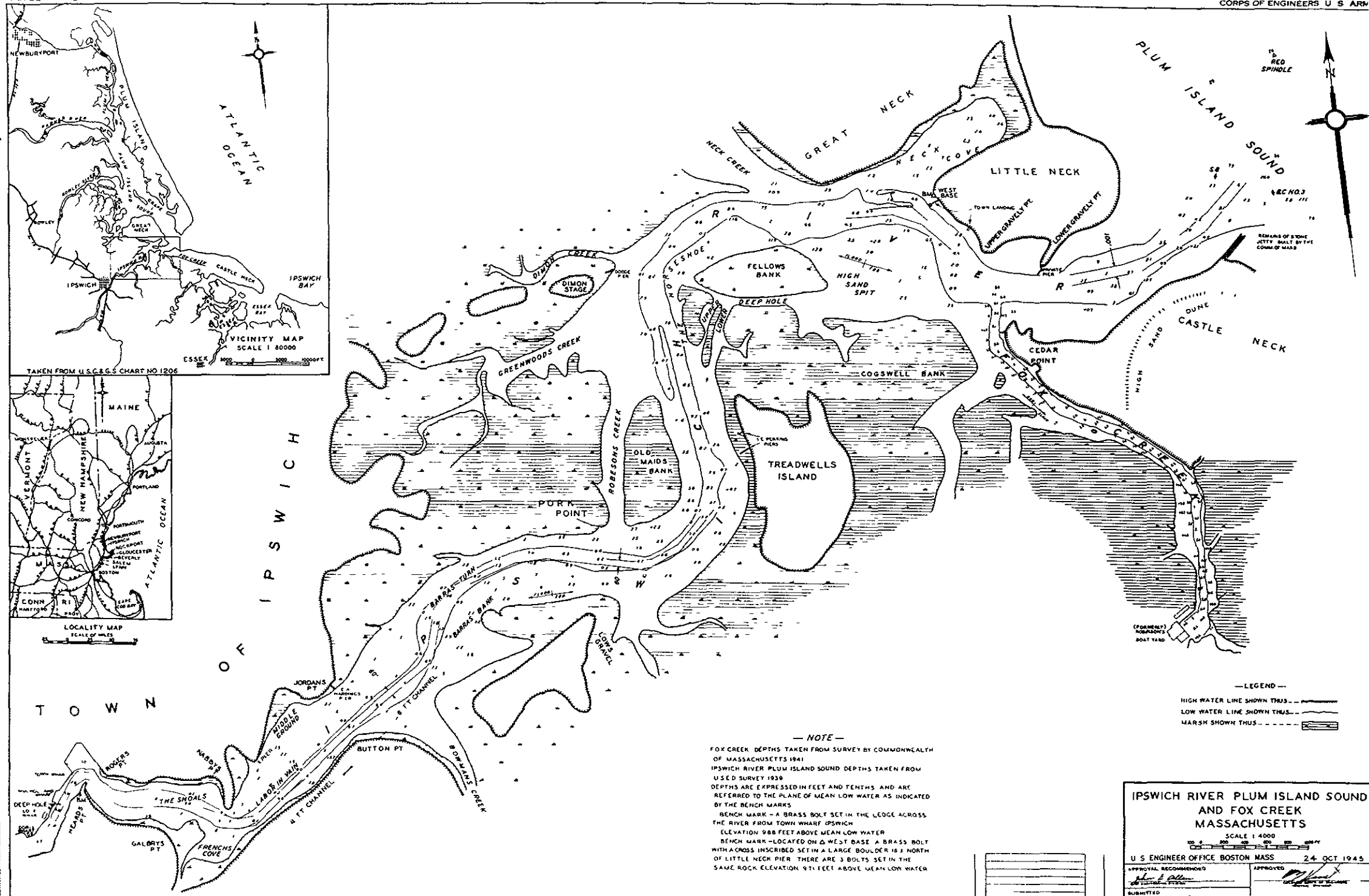
MASSACHUSETTS

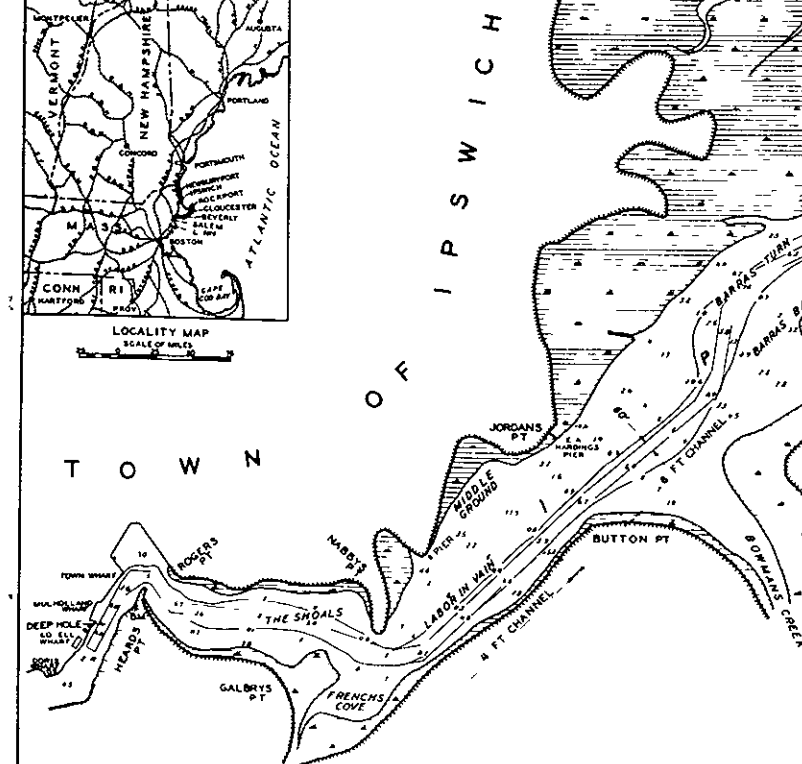
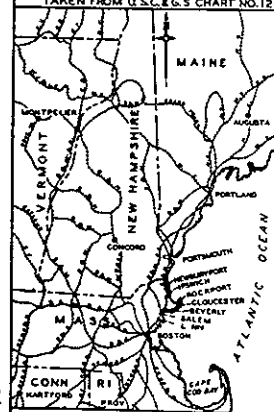
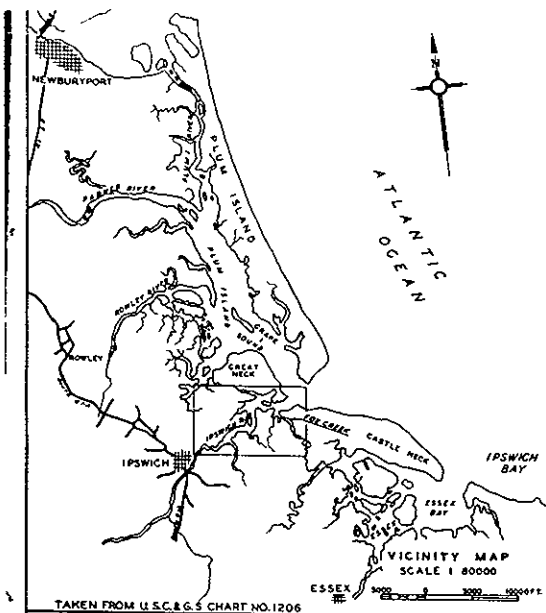


AUTHORITY- THIS REPORT IS
SUBMITTED IN COMPLIANCE
WITH SECTION 6 OF THE
RIVER & HARBOR ACT
APPROVED 2 MARCH 1945.

U. S. ENGINEER OFFICE,
BOSTON, MASS.
1 NOV. 1945

COPY NO. 20





— NOTE —

FOX CREEK. DEPTHS TAKEN FROM SURVEY BY COMMONWEALTH OF MASSACHUSETTS 1941.
IPSWICH RIVER PLUM ISLAND SOUND DEPTHS TAKEN FROM U.S. SURVEY 1939.
DEPTHS ARE EXPRESSED IN FEET AND TENTHS AND ARE REFERRED TO THE PLANE OF MEAN LOW WATER AS INDICATED BY THE BENCH MARKS.
BENCH MARK - A BRASS BOLT SET IN THE LEDGE ACROSS THE RIVER FROM TOWN WHARF IPSWICH.
ELEVATION 4.88 FEET ABOVE MEAN LOW WATER.
BENCH MARK - LOCATED ON A WEST BASE. A BRASS BOLT WITH A CROSS INSCRIBED SET IN A LARGE BOULDER 18.3 NORTH OF LITTLE NECK PIER. THERE ARE 3 BOLTS SET IN THE SAME ROCK ELEVATION 9.71 FEET ABOVE MEAN LOW WATER.

— LEGEND —

HIGH WATER LINE SHOWN THUS: ———
LOW WATER LINE SHOWN THUS: - - - - -
MARSH SHOWN THUS: [Symbol]

IPSWICH RIVER PLUM ISLAND SOUND AND FOX CREEK MASSACHUSETTS

SCALE 1:4000

U. S. ENGINEER OFFICE, BOSTON, MASS. 24 OCT 1945

APPROVAL RECOMMENDED APPROVED

SUBMITTED TRANSMITTED WITH REPORT DATED 1 NOV 1945

PRELIMINARY EXAMINATION OF
IPSWICH RIVER, PLUM ISLAND SOUND AND
FOX CREEK, MASSACHUSETTS

- - - - -

Syllabus

The district engineer finds that there is no great public interest or demand for the improvement, and he, therefore, recommends that no survey be made of Ipswich River, Plum Island Sound and Fox Creek, Massachusetts.

War Department
United States Engineer Office
Boston 16, Massachusetts
1 November 1945

Subject: Preliminary examination of Ipswich River, Plum Island Sound and Fox Creek, Massachusetts.

To: The Chief of Engineers, U. S. Army, through the Division Engineer, New England Division, Boston 10, Mass.

1. Authority.-- This report is submitted in compliance with Section 6 of the River and Harbor Act approved 2 March 1945 (Public Law No. 14 - 79th Congress) which reads in part as follows:

"Sec. 6. The Secretary of War is hereby authorized and directed to cause preliminary examinations and surveys to be made at the following-named localities, Ipswich River, Plum Island Sound and Fox Creek, Massachusetts".

2. Description.-- Ipswich River, located in the northeastern part of Massachusetts, rises 2 miles southwest of Wilmington Center, Massachusetts, flows generally eastward 13 miles, northward 5 miles, then eastward 5-1/2 miles into Wenham Swamp, then generally northeastward 10 miles to the Atlantic Ocean, emptying into Plum Island Sound 9 miles south of Newburyport, Massachusetts, and 9 miles west of Cape Ann, Massachusetts. The Ipswich River in its entirety has a drainage

area of 12¹/₄ square miles, exclusive of Suntaug Lake, which is located at Lynnfield, Massachusetts, approximately 15 miles southwest of Ipswich. Between Wenham Swamp and the mouth it has a drainage area of 96.7 square miles. The river is marshy throughout most of its course. The head of navigation is at a point about 1,400 feet above the wharves at the Town of Ipswich, a distance of approximately 3 miles upstream from the mouth.

3. Fox Creek is a tributary of the Ipswich River which it enters on the south side about one-half mile from the point where the river empties into Plum Island Sound. It is about one mile long, of variable width, and is bordered on each side by marsh lands.

4. According to the latest survey, completed in January 1939, the controlling depth at mean low water in the Ipswich River is 1.3 feet, which is the least depth over a bar at the entrance to Plum Island Sound. Fox Creek had a controlling depth in 1941 of 3.3 feet at mean low water, while Plum Island Sound has depths greatly in excess of either Ipswich River or Fox Creek. The mean range of tide is 8.7 feet and the extreme range is 9.9 feet. The locality is shown on U. S. Coast & Geodetic Survey Chart No. 1206 and on the map which accompanies this report.

5. There are no bridges crossing the navigable portion of this waterway, and questions of shore line changes, water power, flood control, or other special subjects are not involved in the improvement under consideration in this report.

6. Tributary area.- The area immediately tributary to the Ipswich River and Fox Creek includes only the Town of Ipswich which in 1940 had a population of 6,348. This permanent population is augmented in summer by about 3,000 additional residents. The value of the estates as of 1 January 1940 was \$6,884,180. The city nearest to Ipswich is Newburyport, 9 miles to the north.

7. The Haywood Hosiery Company and Burke's Heel Shop, together with a plant of the Hygrade Sylvania Corp. are the principal industries in the town. In addition to those employed in these industries, a large number of persons are engaged in commercial fishing, with clamming the largest single item, and representing an important source of revenue. Supplying the needs of the large number of summer residents is a considerable business and comprises one of the principal sources of income. W. A. Robinson, Inc. operated a shipyard at Fox Creek for about six years but removed the business to another location early in 1945.

8. Ipswich is readily accessible, being located on U. S. Highway No. 1A, and on the main line of the Boston & Maine Railroad. The town is connected with the surrounding countryside by a network of good roads.

9. Prior reports.- There have been no prior reports on the portion of Ipswich River, Plum Island Sound and Fox Creek under consideration in this report.

10. Existing project.- There is no existing project for Ipswich River, Plum Island Sound and Fox Creek. However, there is an existing project for Ipswich River adopted 5 August 1886 and completed in August 1894, which provides for a channel 60 feet wide and 4 feet deep at mean low water through sand bars in the river called "The Shoals" and "Labor in Vain", and extending to the "Deep Hole" opposite the town wharves.

11. Local cooperation.- There have been no prescribed conditions for local cooperation or cash contributions toward Federal improvement of Ipswich River.

12. Other improvements.- The Commonwealth of Massachusetts has expended a total of \$72,820.92 on dredging, jetty construction, rock removal, and survey work for the improvement of Ipswich River. In ad-

dition to the above amount, \$8,800 was contributed by local interests, making a total expenditure by state and local interests of \$81,620.92. This expenditure of funds resulted in a channel 6 feet deep at mean low water extending from the 6-foot contour in Plum Island Sound to a point about 400 feet below Nabby's Point, a distance of about 2.2 miles; thence 4 feet deep at mean low water to the wharves, a distance of 0.4 mile. The channel width obtained was 60 feet except at the mouth of the river, where the width was 100 feet.

13. In October 1938, a Federal permit was issued to William A. Robinson to dredge a channel in Fox Creek about 0.75 mile long, 35 feet wide, and 6 feet deep at mean low water, with a turning basin 150 by 200 feet and of the same depth, at its inner end. The basin and about 150 feet of the inner end of the channel were completed in December 1938, but the dredging of the remainder of the channel has not been completed.

14. In June 1941, a Federal permit was issued to the Commonwealth of Massachusetts, to dredge a channel in Fox Creek about 0.75 mile long, 40 feet wide and 3 feet deep at mean low water. This channel, which follows the same alignment as the channel for which Mr. Robinson has a permit, was completed in August 1941.

15. During the summer of 1938 the Commonwealth of Massachusetts did some maintenance dredging in Ipswich River. At the mouth of the river, where the greatest shoaling had occurred, the channel was dredged through a sand bar to a depth of 6 feet at mean low water, with a bottom width of 75 feet. The depth prior to dredging on this bar was about 2.0 feet at mean low water, and a survey made by this office from September 1938 to January 1939, subsequent to the maintenance dredging by the commonwealth, showed that the controlling depth over this bar was 1.3 feet. Maintenance dredging was also done

by the Commonwealth in the channel to the southwest of Little Neck, at the Horseshoe, and west of Treadwells Island. These three shoals were removed and a channel, having a width of 60 feet and a depth of 6 feet at mean low water, was restored.

16. Terminal and transfer facilities.- At the upper end of the Ipswich River there are four wharves of the solid-fill type, which are in good condition. There is no water at any of these wharves at low tide. One of them is owned by the Town of Ipswich and is open to the public without charge. It has a small crane and an attached float which extends out to the channel, and is used by both pleasure and fishing boats. Of the three privately owned wharves, one is not in use, while the other two are used principally by fishing boats. One of the latter is equipped with a small hoist. At the site of the abandoned shipyard on Fox Creek there is a small wharf at which is a depth of about 6 feet at mean low water.

17. On the reach of the river from Nabby's Point to the mouth there are eight piers of the runway-and-float type. Two of these piers are owned by the Feoffees of the Grammar School of Ipswich and are open to the public without charge, being used principally by pleasure craft. One of these two piers has a depth of about 4 feet at mean low water at its outer end, while there is no water at the other at low tide. The remaining six piers are privately owned and are not open to the public. There is no water at any of them at low tide.

18. None of these wharves or piers has a rail connection, but the majority of those used by the general public are served by good roads.

19. Improvement desired.- At the suggestion of Hon. George J. Bates, Congressman from the district, inquiries were made of W. A. Robinson, Inc. and the Selectmen of the Town of Ipswich concerning

the desired improvement. A reply was received from the Selectmen stating that as Mr. W. A. Robinson had closed his shipyard and there was no great public interest in the matter, it was their desire that no improvement be considered. No one has been found who expresses a desire for the improvement.

20. Commerce and vessel traffic.- There is no commerce on the waterways under consideration in this report. Vessel traffic was limited to boats either constructed or repaired at the W. A. Robinson, Inc. shipyard. During 1944, the last full year of operations, 4 YTB tugs, 55 LCM tank lighters, and 7 fishing draggers were constructed and 1 fishing dragger was repaired.

21. Discussion.- The following letter dated 11 July 1945 was received from the Selectmen of the Town of Ipswich:


"Due to the fact that Mr. W. A. Robinson is no longer engaged in ship building in the Town of Ipswich, and also that at the present time there is no great public interest or demand for improvements in the Ipswich River; the Board of Selectmen feel that it will be advisable to postpone the holding of any hearing in connection with the above.

Very truly yours,

/s/ Brainard C. Wallace,
Chairman"

22. Conclusion.- The district engineer concludes that in view of the lack of interest as expressed in the above quoted letter, there is no desire for the improvement.

23. Recommendation.- In view of the foregoing, it is recommended that no survey be made of Ipswich River, Plum Island Sound and Fox Creek, Massachusetts.



C. T. HUNT,
Colonel, Corps of Engineers,
District Engineer.

Inclosure:
Map

